

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792	
Sheet 1 of 3				Filing Date	April 13, 2001	
				First Named Inventor	MARGOLSKEE et al.	
				Art Unit	1649	
				Examiner Name	Micheal Brannock	
				Attorney Docket Number	34116/1051	
U.S. PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	U.S. Patent Document Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
WY	1	US-4,826,824	05-02-1989	SCHIFFMAN		
	2	US-5,693,756	12-02-1997	LI et al.		
	3	US-6,558,910 B2	05-06-2003	ZUKER et al.		
	4	US-6,608,176 B2	08-19-2003	CHAUDHARI et al.		
	5	US-2002/0115205 A1	08-22-2002	FOORD et al.		
	6	US-2002/0128433 A1	09-12-2002	YAO et al.		
	7	US-2002/0143151 A1	10-03-2002	YAO et al.		
	8	US-2002/0168635 A1	11-14-2002	ZUKER et al.		
	9	US-2003/0045472 A1	03-06-2003	AXEL et al.		
	10	US-2003/0157568 A1	08-21-2003	ZUKER et al.		
	11	US-2003/0216545 A1	11-20-2003	SPYTEK et al.		
FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
WY	12	WO 97/04666 A1	02-13-1997	BRADY et al.		
	13	WO 00/44929 A2	08-03-2000	ZUKER		
	14	WO 00/45179 A2	08-03-2000	ZUKER et al.		
	15	WO 01/98526 A2	12-27-2001	ZOZULYA et al.		
	16	WO 02/36622 A2	05-10-2002	YAO et al.		
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ³
WY	17	ALBERTS ET AL., ESSENTIAL CELL BIOLOGY 372-373, 376-377 (1997)				
	18	ADLER et al., "A Novel Family of Mammalian Taste Receptors," <i>Cell</i> 100:693-702 (2000)				
	19	ALTENHOFEN et al., "Control of Ligand Specificity in Cyclic Nucleotide-gated Channels from Rod Photoreceptors and Olfactory Epithelium," <i>Proc. Nat'l Acad. Sci. USA</i> 88(21):9868-9872 (1991)				
Examiner Signature				Date Considered	8/6/2007	


*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	MARGOLSKEE et al.
				Group Art Unit	1649
				Examiner Name	Micheal Brannock
Sheet	2	of	3	Attorney Docket Number	34116/1051
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
W	20	BAI et al., "Dimerization of the Extracellular Calcium-sensing Receptor (CaR) on the Cell Surface of CaR-transfected HEK293 Cells," <i>J. Biol. Chem.</i> 273(36):23605-23610 (1998)			
	21	BURNASHEV et al., "Fractional Calcium Currents Through Recombinant GluR Channels of the NMDA, AMPA and Kainate Receptor Subtypes," <i>J. Physiol.</i> 485(2):403-418 (1995)			
	22	CHANDRASHEKAR et al., "T2Rs Function as Bitter Taste Receptors," <i>Cell</i> 100(6):703-711 (2000)			
	23	CHAUDHARI et al., "A Metabotropic Glutamate Receptor Variant Functions as a Taste Receptor," <i>Nat. Neurosci.</i> 3(2):113-119 (2000)			
	24	CHAUDHARI & ROPER, "Molecular and Physiological Evidence for Glutamate (Umami) Taste Transduction via a G Protein-coupled Receptor," <i>Ann. N.Y. Acad. Sci.</i> 855:398-406 (1998)			
	25	CHAUDHARI et al., "The Taste of Monosodium Glutamate: Membrane Receptors in Taste Buds," <i>J. Neurosci.</i> 16(12):3817-3826 (1996)			
	26	DHALLAN et al., "Primary Structure and Functional Expression of a Cyclic Nucleotide-activated Channel from Olfactory Neurons," <i>Nature</i> 347(6289):184-187 (1990)			
	27	GENBANK ACCESSION NO. AA577486 (12-SEP-1997)			
	28	GENBANK ACCESSION NO. AAF98120 (09-AUG-2000)			
	29	GENBANK ACCESSION NO. AB039952 (25-MAR-2006)			
	30	GILBERTSON, "Gustatory Mechanisms for the Detection of Fat," <i>Curr. Opin. Neurobiol.</i> 8(4):447-452 (1998)			
	31	GILLO et al., "Coexpression of <i>Drosophila</i> TRP and TRP-like Proteins in <i>Xenopus</i> Oocytes Reconstitutes Capacitative Ca ²⁺ Entry," <i>Proc. Natl. Acad. Sci. USA</i> 93:14146-14151 (1996)			
32	HU et al., "Appearance of a Novel Ca ²⁺ Influx Pathway in Sf9 Insect Cells Following Expression of the Transient Receptor Potential-like (<i>trpl</i>) Protein of <i>Drosophila</i> ," <i>Biochem. Biophys. Res. Commun.</i> 201(2):1050-1056 (1994)				
Examiner Signature				Date Considered	8/6/2007

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

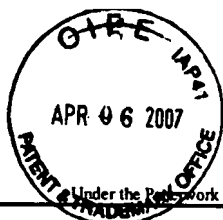
¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	MARGOLSKEE et al.
				Group Art Unit	1649
Examiner Name	Micheal Brannock				
Sheet	3	of	3	Attorney Docket Number	34116/1051

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
W	33	KINNAMON & ROPER, "Passive and Active Membrane Properties of Mudpuppy Taste Receptor Cells," <i>J. Physiol.</i> 383:601-614 (1987)	
	34	KOMURO & RAKIC, "Orchestration of Neuronal Migration by Activity of Ion Channels, Neurotransmitter Receptors, and Intracellular Ca ²⁺ Fluctuations," <i>J. Neurobiol.</i> 37(1):110-130 (1998)	
	35	MATSUNAMI et al., "A Family of Candidate Taste Receptors in Human and Mouse," <i>Nature</i> 404:601-604 (2000)	
	36	MISAKA et al., "Taste Buds Have a Cyclic Nucleotide-activated Channel, CNGgust," <i>J. Biol. Chem.</i> 272(36):22623-22629 (1997)	
	37	NAIM et al., "Some Taste Substances Are Direct Activators of G-proteins," <i>Biochem. J.</i> 297:451-454 (1994)	
	38	OGURA et al., "Bitter Taste Transduction of Denatonium in the Mudpuppy <i>Necturus maculosus</i> ," <i>J. Neurosci.</i> 17(10):3580-3587 (1997)	
	39	PRINCIPLES OF NEURAL SCIENCE 253-279 (Eric R. Kandel et al. eds., 4th ed. 2000)	
	40	ROPER & MCBRIDE, "Distribution of Ion Channels on Taste Cells and Its Relationship to Chemosensory Transduction," <i>J. Membr. Biol.</i> 109(1):29-39 (1989)	
	41	RÖSSLER et al., "Identification of a Phospholipase C β Subtype in Rat Taste Cells," <i>Eur. J. Cell Biol.</i> 77:253-261 (1998)	
	42	THOMAS et al., "Identification of Synaptophysin as a Hexameric Channel Protein of the Synaptic Vesicle Membrane," <i>Science</i> 242(4881):1050-1053 (1988)	
	43	WEISHAAR et al., "A New Generation of Phosphodiesterase Inhibitors: Multiple Molecular Forms of Phosphodiesterase and the Potential for Drug Selectivity," <i>J. Med. Chem.</i> 28(5):538-545 (1985)	
	44	WONG et al., "Transduction of Bitter and Sweet Taste by Gustducin," <i>Nature</i> 381:796-800 (1996)	
V	45	ZHANG et al., "Increased Inwardly Rectifying Potassium Currents in HEK-293 Cells Expressing Murine Transient Receptor Potential 4," <i>Biochem. J.</i> 354(Pt 3):717-725 (2001)	
Examiner Signature	<i>Maeda</i>		Date Considered
			5/6/2007

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792	
				Filing Date	April 13, 2001	
				First Named Inventor	MARGOLSKEE et al.	
				Art Unit	1649	
				Examiner Name	Micheal Brannock	
				Attorney Docket Number	34116/1051	
Sheet	1	of	3			
U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	1	US-4,826,824	05-02-1989	SCHIFFMAN		
	2	US-5,693,756	12-02-1997	LI et al.		
	3	US-6,558,910 B2	05-06-2003	ZUKER et al.		
	4	US-6,608,176 B2	08-19-2003	CHAUDHARI et al.		
	5	US-2002/0115205 A1	08-22-2002	FOORD et al.		
	6	US-2002/0128433 A1	09-12-2002	YAO et al.		
	7	US-2002/0143151 A1	10-03-2002	YAO et al.		
	8	US-2002/0168635 A1	11-14-2002	ZUKER et al.		
	9	US-2003/0045472 A1	03-06-2003	AXEL et al.		
	10	US-2003/0157568 A1	08-21-2003	ZUKER et al.		
	11	US-2003/0216545 A1	11-20-2003	SPYTEK et al.		
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	12	WO 97/04666 A1	02-13-1997	BRADY et al.		
	13	WO 00/44929 A2	08-03-2000	ZUKER		
	14	WO 00/45179 A2	08-03-2000	ZUKER et al.		
	15	WO 01/98526 A2	12-27-2001	ZOZULYA et al.		
	16	WO 02/36622 A2	05-10-2002	YAO et al.		
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ³
	17	ALBERTS ET AL., ESSENTIAL CELL BIOLOGY 372-373, 376-377 (1997)				
	18	ADLER et al., "A Novel Family of Mammalian Taste Receptors," <i>Cell</i> 100:693-702 (2000)				
	19	ALTENHOFEN et al., "Control of Ligand Specificity in Cyclic Nucleotide-gated Channels from Rod Photoreceptors and Olfactory Epithelium," <i>Proc. Nat'l Acad. Sci. USA</i> 88(21):9868-9872 (1991)				
Examiner Signature				Date Considered		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Duplicate Do NOT PRINT

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	MARGOLSKEE et al.
				Group Art Unit	1649
				Examiner Name	Micheal Brannock
Sheet	2	of	8	Attorney Docket Number	34116/1051
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	20	BAI et al., "Dimerization of the Extracellular Calcium-sensing Receptor (CaR) on the Cell Surface of CaR-transfected HEK293 Cells," <i>J. Biol. Chem.</i> 273(36):23605-23610 (1998)			
	21	BURNASHEV et al., "Fractional Calcium Currents Through Recombinant GluR Channels of the NMDA, AMPA and Kainate Receptor Subtypes," <i>J. Physiol.</i> 485(2):403-418 (1995)			
	22	CHANDRASHEKAR et al., "T2Rs Function as Bitter Taste Receptors," <i>Cell</i> 100(6):703-711 (2000)			
	23	CHAUDHARI et al., "A Metabotropic Glutamate Receptor Variant Functions as a Taste Receptor," <i>Nat. Neurosci.</i> 3(2):113-119 (2000)			
	24	CHAUDHARI & ROPER, "Molecular and Physiological Evidence for Glutamate (<i>Umami</i>) Taste Transduction via a G Protein-coupled Receptor," <i>Ann. N.Y. Acad. Sci.</i> 855:398-406 (1998)			
	25	CHAUDHARI et al., "The Taste of Monosodium Glutamate: Membrane Receptors in Taste Buds," <i>J. Neurosci.</i> 16(12):3817-3826 (1996)			
	26	DHALLAN et al., "Primary Structure and Functional Expression of a Cyclic Nucleotide-activated Channel from Olfactory Neurons," <i>Nature</i> 347(6289):184-187 (1990)			
	27	GENBANK ACCESSION NO. AA577486 (12-SEP-1997)			
	28	GENBANK ACCESSION NO. AAF98120 (09-AUG-2000)			
	29	GENBANK ACCESSION NO. AB039952 (25-MAR-2006)			
	30	GILBERTSON, "Gustatory Mechanisms for the Detection of Fat," <i>Curr. Opin. Neurobiol.</i> 8(4):447-452 (1998)			
	31	GILLO et al., "Coexpression of <i>Drosophila</i> TRP and TRP-like Proteins in <i>Xenopus</i> Oocytes Reconstitutes Capacitative Ca ²⁺ Entry," <i>Proc. Natl. Acad. Sci. USA</i> 93:14146-14151 (1996)			
	32	HU et al., "Appearance of a Novel Ca ²⁺ Influx Pathway in Sf9 Insect Cells Following Expression of the Transient Receptor Potential-like (<i>trpl</i>) Protein of <i>Drosophila</i> ," <i>Biochem. Biophys. Res. Commun.</i> 201(2):1050-1056 (1994)			
Examiner Signature				Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Duplicate Do Not Print

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/834,792
				Filing Date	April 13, 2001
				First Named Inventor	MARGOLSKEE et al.
				Group Art Unit	1649
				Examiner Name	Micheal Brannock
Sheet	3	of	3	Attorney Docket Number	34116/1051

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	33	KINNAMON & ROPER, "Passive and Active Membrane Properties of Mudpuppy Taste Receptor Cells," <i>J. Physiol.</i> 383:601-614 (1987)	
	34	KOMURO & RAKIC, "Orchestration of Neuronal Migration by Activity of Ion Channels, Neurotransmitter Receptors, and Intracellular Ca ²⁺ Fluctuations," <i>J. Neurobiol.</i> 37(1):110-130 (1998)	
	35	MATSUNAMI et al., "A Family of Candidate Taste Receptors in Human and Mouse," <i>Nature</i> 404:601-604 (2000)	
	36	MISAKA et al., "Taste Buds Have a Cyclic Nucleotide-activated Channel, CNGgust," <i>J. Biol. Chem.</i> 272(36):22623-22629 (1997)	
	37	NAIM et al., "Some Taste Substances Are Direct Activators of G-proteins," <i>Biochem. J.</i> 297:451-454 (1994)	
	38	OGURA et al., "Bitter Taste Transduction of Denatonium in the Mudpuppy <i>Necturus maculosus</i> ," <i>J. Neurosci.</i> 17(10):3580-3587 (1997)	
	39	PRINCIPLES OF NEURAL SCIENCE 253-279 (Eric R. Kandel et al. eds., 4th ed. 2000)	
	40	ROPER & MCBRIDE, "Distribution of Ion Channels on Taste Cells and Its Relationship to Chemosensory Transduction," <i>J. Membr. Biol.</i> 109(1):29-39 (1989)	
	41	RÖSSLER et al., "Identification of a Phospholipase C β Subtype in Rat Taste Cells," <i>Eur. J. Cell Biol.</i> 77:253-261 (1998)	
	42	THOMAS et al., "Identification of Synaptophysin as a Hexameric Channel Protein of the Synaptic Vesicle Membrane," <i>Science</i> 242(4881):1050-1053 (1988)	
	43	WEISHAAR et al., "A New Generation of Phosphodiesterase Inhibitors: Multiple Molecular Forms of Phosphodiesterase and the Potential for Drug Selectivity," <i>J. Med. Chem.</i> 28(5):538-545 (1985)	
	44	WONG et al., "Transduction of Bitter and Sweet Taste by Gustducin," <i>Nature</i> 381:796-800 (1996)	
	45	ZHANG et al., "Increased Inwardly Rectifying Potassium Currents in HEK-293 Cells Expressing Murine Transient Receptor Potential 4," <i>Biochem. J.</i> 354(Pt 3):717-725 (2001)	
Examiner Signature			Date Considered

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Duplicate Do NOT Print